



**U.S. Army Corps of  
Engineers**

**Facilities and Equipment  
Maintenance System**

# ***FEM System***

*Facilities & Equipment*  
*Maintenance System*

**FEM System Hierarchies**

# ***FEM System***



**An Enterprise Computerized Maintenance Management System (CMMS).** The reason for implementing an Enterprise CMMS is the need to decrease USACE O&M costs while preserving the operational projects' high level of service. The FEM System has the capability to improve all USACE maintenance processes and efficiencies.

# ***FEM System***

***Enterprise*** is used whenever an asset classification, hierarchy level, or hierarchy system is required to be used by everyone in USACE.

# ***FEM System***

- Enterprise Hierarchy Components**
  - I. **Asset Catalog Classifications**
  - II. **Equipment & Equipment Hierarchy**
  - III. **Operating Locations & Location Systems**

# **FEM System**

**'Equipment'** is FEM System terminology that includes everything that must be maintained. Examples are facilities, large and small 'pieces' of equipment, buildings, grounds, river banks, dikes, revetments, roofs and walls, lock chambers and navigation channels.

**If it's a noun . . . it's  
'equipment' .'**

# ***FEM System***

## **Asset Classification**

Based on

**Appendix A, Chapter 31,  
ER 37-2-10**

*Accounting and Reporting - Civil Works Activities*

CH 1-88, 31 January 2000

# **FEM System**

- Equipment.**
  - I. Asset *Classes*.
  - II. Asset *Groups*.
    - ❖ **Principal Items**, ER 37-2-10, Chapter 31, Appendix A.
- In those cases when an Asset *Group* has a ‘*Sub-Group*’, the ‘*Sub-Group*’ is treated as an Asset *Group*. This is to avoid adding another hierarchy level.

# ***FEM System***



## **Equipment**



### **Asset Classes**

- ❖ Real property (*REMIS*)
- ❖ Personal property (*APPMS*)

# **FEM System**

## **Real Property Asset Groups**

<b>Code</b>	<b>Description</b>
<b>01</b>	<b>Lands and Damages</b>
<b>02</b>	<b>Relocations</b>
<b>03</b>	<b>Reservoirs</b>
<b>041</b>	<b>Main Dam and Spillway</b>
<b>043</b>	<b>Outlet Works (Exclusive of Power)</b>
<b>044</b>	<b>Power Intake Works</b>
<b>045</b>	<b>Auxiliary Dams</b>
<b>046</b>	<b>Municipal and Industrial Water Delivery Facilities</b>

# **FEM System**

## **Real Property Asset Groups**

<b>Code</b>	<b>Description</b>
05	Locks
06	Fish and Wildlife Facilities
071	Power House
072	Turbines and Generators (Including Station Service)
073	Power Plant, Accessory Electrical Equipment
074	Miscellaneous Power Plant Equipment

# **FEM System**

## **Real Property Asset Groups**

<b>Code</b>	<b>Description</b>
<b>075</b>	<b>Tailrace</b>
<b>076</b>	<b>Switchyard</b>
<b>08</b>	<b>Roads, Railroads and Bridges</b>
<b>09</b>	<b>Channels and Canals</b>
<b>11</b>	<b>Levees and Floodwalls</b>
<b>13</b>	<b>Pumping Plants</b>
<b>14</b>	<b>Recreation Facilities</b>
<b>19</b>	<b>Buildings, Grounds and Utilities</b>

# **FEM System**

## **Personal Property Asset Groups**

<b>Code</b>	<b>Description</b>
20	<b>Floating Plant</b>
20	<b>Automotive Land Plant</b>
20	<b>Other Mobile Land Plant</b>
20	<b>Office Furniture and Equipment</b>
20	<b>Material Handling Equipment</b>
20	<b>Shop Tools and Equipment</b>
20	<b>Laboratory and Testing Equipment</b>
20	<b>Portable Work Equipment and Tools</b>
20	<b>Communication Equipment</b>
20	<b>Audio Visual Equipment</b>

# **FEM System**

- **Asset classification hierarchy.**
  - ⇒ **Established in the Asset Catalog of the Inventory Module.**
    - ❖ **Asset Group is Classification level 1.**
    - ❖ **Principal item is Classification level 2.**
    - ❖ **Sub-item is Classification level 3.**

# ***FEM System***

- **Principal Item *Groups* (user-defined)**
  - ❖ **Principal Items**
    - ◆ Principal Item Components (user-defined)
  - ⇒ **Principal Item *Sub-Groups* (user-defined)**
    - ❖ **Principal Items**
      - ◆ Principal Item Components (user-defined)

# ***FEM System***

- **Enterprise Operating Locations**
  - ⇒ **Operating Locations that are used by everyone**
    - ❖ U.S. Army Corps of Engineers – USACE
    - ❖ Divisions, ERDC
    - ❖ Regional HQs, Centers, FOAs, labs
    - ❖ Districts
    - ❖ Project groups
    - ❖ Projects, District office elements

# ***FEM System***

## **Enterprise Operating Location Systems.**

- ⇒ ‘Parallel’ to Operating Locations.
- ⇒ **System names must be unique.**

❖ **Example:** ‘*White River*’ is not a unique system name.

• **Solution:** Identify where the headwaters originate.

- ◆ **White River (AR).**
- ◆ **White River (IL).**

# ***FEM System***



## **Enterprise Summary**

### **→ Equipment Hierarchy**

- ❖ **Asset Classes:** Real & Personal
- ❖ **Asset Groups:** ER 37-2-10, Chapter 31,  
Appendix A
  - **Principal Item Groups & Sub-Groups = User-defined**
    - ◆ **Principal Items - Lowest Enterprise Level**
    - ◆ **Principal Item Components = User-defined**

# ***FEM System***



## **Enterprise Summary**

### ⇒ **Enterprise Operating Locations**

- ❖ USACE
- ❖ Division / ERDC
- ❖ Regional HQs, Centers, FOAs, Labs
- ❖ Districts
- ❖ Project groups
- ❖ Projects & District Office elements

### ⇒ **Enterprise Operating Location Systems**

- ❖ River
- ❖ Navigation
- ❖ Lake/Pool
- ❖ Basin

# Engineers on Time for the Army and the Nation

The FEM System is the USACE maintenance management tool that will cultivate an enterprise system to yield the fruits of synergy. The FEM System is revolutionary information technology that combines people, processes and communication in creative ways that will produce a level of service far exceeding that of individual offices acting separately and unaided.